



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO. FILING DATE		LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/660,370 09/12/2000		09/12/2000	Thomas P. Hardjono	2204/A55	6652	
34845	7590	03/09/2005	EXAMINER TRAN, TONGOC			
STEUBING 125 NAGOO		ICGUINESS & M.				
ACTON, M			ART UNIT	PAPER NUMBER		
				2134	2134	
				DATE MAILED: 03/09/2003	5	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application	Application No.		Applicant(s)					
		09/660,37	0	HARDJONO						
	Office Action Summary	Examiner		Art Unit						
		Tongoc T		2134						
Period fo	- The MAILING DATE of this communication ap r Reply	pears on the	cover sheet with the c	orrespondence a	ddress					
THE N - Exten after S - If the - If NO - Failur Any re	DRTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. sions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a reperiod for reply is specified above, the maximum statutory period to to reply within the set or extended period for reply will, by statutely received by the Office later than three months after the mailing department adjustment. See 37 CFR 1.704(b).	.136(a). In no even ply within the statu I will apply and wil te, cause the appl	ent, however, may a reply be timutory minimum of thirty (30) days Il expire SIX (6) MONTHS from ication to become ABANDONE	nely filed s will be considered time the mailing date of this of D (35 U.S.C. § 133).						
Status										
1)⊠	1) Responsive to communication(s) filed on 28 October 2004.									
2a)□	This action is FINAL . 2b)⊠ This action is non-final.									
•	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.									
Dispositi	on of Claims									
5)□ 6)⊠ 7)⊠	Claim(s) 1-12,18-36 and 48-66 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. Claim(s) is/are allowed. Claim(s) 1,4-12,18-36 and 48-66 is/are rejected. Claim(s) 2-3 is/are objected to. Claim(s) are subject to restriction and/or election requirement.									
Applicati	on Papers									
9)[⁻	The specification is objected to by the Examin	er.								
,	10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.									
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).									
11)	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.									
Priority u	nder 35 U.S.C. § 119									
a)[Acknowledgment is made of a claim for foreig All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureate the attached detailed Office action for a list	nts have bee nts have bee ority docume au (PCT Rule	n received. n received in Application ents have been receive e 17.2(a)).	on No ed in this Nationa	l Stage					
Attachment			_							
	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948)		4) Interview Summary Paper No(s)/Mail Da							
3) Inform	e of Draftsperson's Patent Drawing Review (P10-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 'No(s)/Mail Date	3)	5) Notice of Informal P 6) Other:		[*] O-152)					

Application/Control Number: 09/660,370 Page 2

Art.Unit: 2134

DETAILED ACTION

1. This office action is in response to Applicant's amendment filed on 10/28/2004. Claims 18, 20, 22, 48, 53, 58 and 66 have been amended. Claims 13-17, 37-47 and 67-69 have been canceled. Claims 1-12, 18-36 and 48-66 are pending.

Response to Arguments

2. Applicant's arguments with respect to independent claim 1 and amended claims have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. The amendment filed on 10/28/2005 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

"a communication comprising a group key for a multicast group and an authentication key for use in authenticating multicast membership request by a host device". Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 4-12, 18-36 and 48-66 are rejected under 35 U.S.C. 102(b) as being anticipated by Ballardie (Network Working Group, University College of London, May 1996).

a rendezvous point device that forwards multicast communication messages to members of a shared tree; a designated device in communication with the rendezvous point device via a number of intermediate devices (see pages 8-12, e.g. host h, router A

In respect to claim 1, Ballardie discloses a communication system comprising:

and B-intermediate device and Core router-rendezvous point device, page 11);

a host device sends a join request to the designated device using a predetermined multicast group management protocol in order to join the shared tree for receiving the multicast communication messages forwarded by the rendezvous point device (page 11);

the designated device receives the join request and forwards to the rendezvous point device via the number of intermediate devices an encoded join request generated using an authentication key associated with the host device (page 9-10);

the rendezvous point device receives the encoded joint request and authenticates the encoded join message using the authentication key associated with the host device; and the host device is prevented from receiving the multicast communication messages forwards by the rendezvous point device, if the rendezvous point device determined that the encode join message is not authentic (pages 10, last paragraph-page 12, 3rd paragraph).

In respect to claim 4, Ballardie discloses the communication system of claim 1, wherein the host device sends the authentication key to the designated device (see page 9-10).

In respect to claim 7, Ballardie discloses the communication system of claim 1, wherein the designated device joins the shared tree on behalf of the host device (see pages 10-11).

In respect to claim 8, Ballardie discloses the communication system of claim 7, wherein the designated device establishes appropriate multicast routes for forwarding multicast communication messages to the host (see Ballardie, pages 9-12).

In respect to claim 9, Ballardie discloses the communication system of claim 1, wherein each intermediate device receives the encoded join request and forwards the encoded join request toward other routing element (see page 10).

In respect to claim 10, Ballardie discloses the communication system of claim 9, wherein each intermediate device that is not already joined to the shared tree joins the shared tree on behalf of the host device and establishes appropriate multicast routes for forwarding multicast communication messages toward the host device upon receiving the join request (see Ballardie, pages 8-12).

In respect to claim 11, Ballardie discloses the communication system of claim 9, wherein each intermediate device that is already joined to the shared tree waits for an explicit acknowledgment message from the primary router and establishes appropriate multicast routes for forwarding multicast communication messages toward the host

Art Unit: 2134

device only upon receiving the explicit acknowledgment message from the primary router (see Ballardie, pages 8-12).

In respect to claim 12, Ballardie disclose the communication system of claim 1, wherein the primary router sends an explicit acknowledgment message toward the host device upon determining that the join request is authentic (see Ballardie, page 9-12).

In respect to claim 18, Ballardie discloses a method comprising:

Obtaining an authentication key; and sending a join request to a designated device using a predetermined multicast group management protocol, the join request including the authentication key to enable the designated device to encode the join message for authentication by rendezvous point (see Ballardie, pages 8-12).

In respect to claim 19, the claim limitation is similar to claim 6. Therefore, claim 19 is rejected based on the similar rationale.

In respect to claims 20-23, the claim limitations are similar to claims 18-19. Therefore, claims 20-23 are rejected based on the similar rationale.

In respect to claims 24-25, Ballardie discloses the computer readable medium of claim 22, wherein the computer readable medium is a computer storage medium and a computer communication medium (see Ballardie, page 1).

In respect to claim 26, Ballardie discloses a method comprising:

Receiving a join request from a host device; generating an encoded join request using an authentication key associated with the host device; and sending the encoded join request toward a rendezvous point device (see Ballardie, pages 8-12).

Art Unit: 2134

In respect to claim 27, Ballardie discloses the method of claim 26, wherein the join request includes the authentication key (see Ballardie, page 10).

In respect to claim 28, Ballardie discloses the method of claim 26, further comprising:

Joining a shared tree on behalf of the host device and establishing and establishing appropriate multicast routes for forwarding multicast communication messages to the host devices (see Ballardie, pages 8-12).

In respect to claims 29-36, the claim limitations are similar to claims 24-28.

Therefore, claims 29-36 are rejected based on the similar rationale.

In respect to claim 65, the claim limitation is substantially similar to claim 1. Therefore, claim 65 is rejected based on the similar rationale.

In respect to claim 48, Ballardie discloses a method comprising:

Receiving, from a designated routing device coupled to a host an encoded join request for the host device, the encoded join request being encoded by the designated routing device using an authentication key associated with the host (see Ballardie, pages 8-12, Fig. 1, Host h, router A or B, Core router (c), e.g. "join is digitally signed by router A", page 10, second paragraph); authenticating the encoded join request to determine whether or not the encoded joint message is authentic; and establishing appropriate multicast routes for forwarding multicast communication messages to the host device if and only if the join request is determined to be authentic (see Ballardie, pages 8-12, page, e.g. "c also authenticates host h", page 10, last paragraph to page 12, third paragraph).

Art Unit: 2134

In respect to claim 49, Ballardie discloses the method of claim 48, wherein authenticating the encoded join request comprises:

maintaining a number of authentication keys; determining the host device for the encoded join request; and searching for an authentication key associated with the host device (see Ballardie, page 10, last paragraph to page 12, third paragraph).

In respect to claim 50, Ballardie discloses the method of claim 49, wherein authenticating the encoded join request further comprises:

failing to find an authentication key associated with the host device; and determining that the encoded ,loin request is not authentic (see Ballardie, page 10, last paragraph to page 12, third paragraph).

In respect to claim 51, Ballardie discloses the method of claim 49, wherein authenticating the encoded join request further comprises:

finding an authentication key associated with the host device; and authenticating the encoded join request using the authentication key associated with the host device (see Ballardie, page 10, last paragraph to page 12, third paragraph).

In respect to claim 52, Ballardie discloses the method of claim 48, further comprising:

sending an explicit acknowledgment toward the host device if and only if the encoded join request is determined to be authentic (see Ballardie, page 10, last paragraph to page 12, third paragraph).

In respect to claims 53-62 and 65, the claim limitations are apparatus and computer readable medium and a communication system claims that are substantially

similar to method claims 48-52. Therefore, claims 53-62 are rejected based on the similar rationale.

In respect to claims 63-64, Ballardie discloses the computer readable medium of claim 58, wherein the computer readable medium is a computer storage medium and a communication medium (see Ballardie, page 1).

In respect to claim 66, Ballardie discloses a communication message embodied in a data signal which is forwarded between computer devices in a computer network, the communication message comprising a group key for a multicast group and an authentication key for use in authenticating multicast membership request by a host device (see Ballardie, pages 1-page 15).

Allowable Subject Matter

Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tongoc Tran whose telephone number is (571) 272-3843. The examiner can normally be reached on 8:30-5:00.

Art Unit: 2134

Page 9

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (571) 272-3838. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Tongoc Tran

Art Unit: 2134

TT

March 7, 2005

GOEGORY MORSE

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100